

REMARKS

Claims 1 - 15 remain active in this application. Claims 1 and 6 have been amended to more fully recite the function of a transponder and thus to emphasize the recitation of "transponder" in the claims. Support for the amendments of the claims is found throughout the application, particularly in Figure 1 and in the sentence bridging pages 12 and 13 of the original specification. No new matter has been introduced into the application. Withdrawal of the previous grounds of rejection is noted with appreciation.

Claims 1 - 2, 6 - 8 and 15 have again been rejected under 35 U.S.C. §103 as being unpatentable over Meier in view of Flach et al. Claims 3 - 5 have again been rejected under 35 U.S.C. §103 as being unpatentable over Meier in view of Flach et al. and further in view of Welles, II, et al. Claims 9 - 10 and 13 - 14 have again been rejected under 35 U.S.C. §103 as being unpatentable over Meier in view of Flach et al. a further in view of Stewart. Claim 11 has again been rejected under 35 U.S.C. §103 as being unpatentable over Meier in view of Flach et al. and further in view of Stewart and Ralieggh et al. Claim 12 has again been rejected under 35 U.S.C. §103 as being unpatentable over Meier in view of Flach et al. and further in view of Stewart and Gamlyn et al. All five of these grounds of rejection (which substitute the combination of Meier in view of Flach et al. for Carter et al., as applied in the previous office action) are respectfully traversed.

The invention is directed to a transponder and system including a transponder which takes advantage of the properties and functions of wireless local area networks (WLANs) and the infrastructure contained in them and includes use of commercially available mobile devices already interoperable with them as well as the

transponders which may be attached to objects and which are specially adapted (simply by arranging for them to communicate using a WLAN protocol) to also interoperate with and be recognized by the WLAN. The invention takes advantage of the fact that the access points (AP) of a WLAN normally detects the presence of nearby equipment such as mobile computers and that the physical location of the access points is *a priori* known to the WLAN. Therefore, by arranging transponders to communicate using standard WLAN protocols, the WLAN is enabled to detect and thus track the transponders in the same manner as detecting other devices which are interoperable with the WLAN system using the infrastructure already available within the WLAN *but which was not originally designed for such a purpose*. In short, the invention derives a function much like that of a radio frequency identification (RFID) system in addition to that of the WLAN from the existing WLAN infrastructure as well as additional useful functions as a consequence of doing so, such as increased precision of location detection (e.g. by processing via various algorithms of data collected from multiple access points of the WLAN) and periodic determination of condition or status of the objects tracked.

In sharp contrast, systems for tracking objects which are known or available in the art or described in the literature, including the prior art of record in this application, and providing RFID-like functions utilize a *separate and specially designed* infrastructure specific to the physical/geographical location task. For example, Flach et al. discloses a TDMA network that can be used to provide high-level location proximity information regarding assets in a medical environment while standard WLANs do not use TDMA and were not designed or intended for location determination applications.

Viewed from another perspective, it is believed to be important to distinguish between transponders and other devices such as general or special purpose (e.g. telemetry) communication processors. A transponders is defined (for example in the Oxford English Dictionary) as "A device which automatically transmits a pulse or signal *on receiving one from an interrogator*" (emphasis added), as emphasized in the claims by the above amendments, whereas telemetry such as for medical patient condition monitoring is generally continuous or at least spontaneous, consistent with the definition (again in the Oxford English Dictionary) of "The process of making measurements and relaying them for recording or display to point at a distance". This distinction is important in regard to network communication capacity since the number of communication processors with which any given access point can concurrently communicate is necessarily limited, at least by bandwidth constraints whereas transponders are generally polled using time slots or bandwidth, as available, and thus do not significantly impair the ability of a WLAN to service a maximal number of terminal units (e.g. mobile processors such as laptops, telemetry units or the like). That is, the invention allows leveraging of the WLAN infrastructure to provide additional and useful functions without significantly compromising the normal WLAN operation. The prior art applied by the Examiner does not even approach such a *concept*, much less answer the explicit recitations of the claims.

Meier teaches a wireless network suitable for inclusion of the invention but teaches nothing relevant to implementation thereof, much less a transponder capable of communicating identification information using a wireless network protocol or a WLAN system including such a transponder. More specifically Meier is directed to an extension of an open wireless local

area network (OWL) which uses a plurality of protocols and the protocols of Meier (as such extension) are explicitly said to "enable mobility across IP [internet protocol] subnets for both IP and non-IP nodes, and enables non-IP nodes, on two or more subnets, to communicate as if connected by a single (possibly bridged) local area network" (see column 3, lines 20 - 45). Therefore, Meier, while teaching nothing of relevance to the invention, as claimed, teaches away from it by provision of plural protocols for different types of devices.

Flach et al., while similar in some basic functions to the present invention requires a new form of device (referred to as a VCELL therein) that functions similarly to a network wireless access point and forms the basis of the wired infrastructure of the disclosed system and also relies upon use of a TDMA network, as discussed above. That is, the use of (and reliance of) a VCELL as well as use of a TDMA network represents an infrastructure different from that of a WLAN infrastructure and thus also teaches away from the concept of the present invention as well as the explicit recitations of the claims. Further, by doing so, Flach et al. loses potential functionality of the standard WLAN in that it provides location information only to the resolution of proximity to the nearest VCELL whereas the invention leveraging a WLAN allows utilization of signal quality information from multiple access points to provide higher resolution of location information through various algorithms (such as are recited in claims 10 - 12) singly or in combination. These deficiencies of Meier and Flach et al. are not mitigated by the teachings, suggestion or evidence of a level of ordinary skill in the art of the additional references applied in combination with Meier and Flach et al. and the reference, taken in any combination, do not lead to an expectation of success in providing the

meritorious effects of the invention for the reasons indicated in previously submitted remarks which are hereby fully incorporated herein by reference: to provide enhanced RFID-like functions and additional useful functions by leveraging of capabilities of an existing WLAN, and certainly not by the expedient claimed: the use of a transponder having the explicitly recited features of transmitting at least identification information using the protocol of the WLAN, when interrogated.

In summary, the Examiner continues to appear to focus on providing an approximation of the function of the invention by means other than those claimed and requiring newly specially developed elements in the network infrastructure and thus has not answered even the basic concept of the invention which provides additional useful functions from a network infrastructure which is not only known but, in many cases, already existing by the simple expedient of providing *transponders* (as distinct from general purpose of special purpose processors interoperable with a network, which may also be used in conjunction with the WLAN) which can communicate at least identification information using the WLAN protocol *when interrogated*. Therefore, the Examiner continues to fail to make a *prima facie* demonstration of the obviousness of the subject matter of any claim and is now relying on a combination of principal references; both of which teach away from the subject matter explicitly recited in the claims.

Thus, it is respectfully submitted that all claims in the application, particularly as amended to emphasize the existing recitation of "transponder" are clearly and patentably distinguished from the prior art applied against them and it is abundantly clear that the five separate grounds of rejection are all clearly in error and untenable while no *prima facie*

demonstration of the propriety of any asserted ground of rejection has been made. Therefore, upon reconsideration, it is respectfully requested that all stated grounds of rejection be withdrawn.

Since all rejections, objections and requirements contained in the outstanding official action have been fully answered and shown to be in error and/or inapplicable to the present claims, it is respectfully submitted that reconsideration is now in order under the provisions of 37 C.F.R. §1.111(b) and such reconsideration is respectfully requested. Upon reconsideration, it is also respectfully submitted that this application is in condition for allowance and such action is therefore respectfully requested.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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